

REMARKS

The applicants appreciate the Examiner's thorough examination of the application and request reexamination and reconsideration of the application in view of the following remarks.

Claims 26-29 stand rejected under 35 USC §103(a) as allegedly being unpatentable over U.S. Patent No. 6,490,455 to Park et al. in view of U.S. Patent No. 6,438,385 to Heinonen et al. and in further view of German Patent No. DE197 44 263 to Feisch.

The subject invention results from the realization that wireless communication devices such as cellular telephones can, without jamming, be effectively controlled in secure areas or any place where they are deemed to be an annoyance, but also not intervened with outside of a predefined area, by a control unit that is independent from a network of base stations which tricks the wireless communication device into believing it has established a communication channel with the base station of a nearby cellular tower.

By measuring the absolute field strength of all received transmissions output by surrounding base stations and recording the information transmitted by the base stations, the control unit of the subject invention sets the power level of its transmitter to have an absolute field strength greater than the highest measured absolute field strength detected from a corresponding base station and transmits a signal containing information that identifies it as if it was an actual base station. Then, the cell phone transmits an interface signal, anticipating a response from the base station. The control unit then transmits a signal back to the cell phone mimicking the signal which would be transmitted by an actual base station. But, since the cell phone believes the control unit is a base station, the control unit is able to control the cell phone to prevent incoming or outgoing calls with its carrier network. This may be accomplished by instructing the cell phone to lower its transmission power or change its transmitting frequency so

that further transmissions from the wireless communication device do not reach any corresponding surrounding base stations.

As described below, none of the cited references, either alone or in combination, teach, disclose or suggest a cell phone intervention device independent from a network of base stations which the cell phone communicates with that includes a control module which establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, as claimed by the applicants.

Park et al. only relates to a method and apparatus for detecting a mobile phone in an idle state. Signal-generating unit 300, Fig. 3, generates a pseudo base station signal for transmission to a mobile phone in a detection area. Detecting unit 400 detects a response signal from the mobile phone that the phone transmits in response to the pseudo base station signal. When detecting unit 400 detects the response signal from the mobile phone, alarm-generating unit 500 generates an alarm itself to alert the person carrying the mobile phone or a supervisor that a mobile phone in idle state is present and should be turned off. *See* Park et al., column 9, lines 41-55. Park et al does not disclose controlling the cell phone to prevent its use.

More specifically, Park et al. does not teach, disclose or suggest transmitting information to a mobile phone to control the mobile phone to prevent use of the mobile phone with the surrounding base stations, as claimed by applicants. With Park's system, the mobile phone can still make and receive calls via the carrier network.

The Examiner admits that Park does not disclose instructing the wireless communication device to lower its transmission power so that its transmissions do not reach any corresponding surrounding base.

To allegedly overcome the deficiencies of Park et al., the Examiner combines it with both Heinonen et al. and Feisch.

Heinonen et al. relates to a mobile phone intervention device that is dependent on a network of base stations. *See* Heinonen et al. at column 4, lines 9-22. With the apparatus of Heinonen et al., it is one of the base stations that provides a muting message to the mobile phone, not a cell phone intervention device independent from a network of base stations. As such, one skilled in the art would not even look to Heinonen et al., much less combine Heinonen et al. with Park, to provide a cell phone intervention device independent from a network of base stations.

Furthermore, Heinonen et al. does not disclose a cell phone intervention device independent from a network of base stations that includes a control module a control module which establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, as claimed by the applicants.

Feisch relates to a “turn-off unit” that is part of a mobile radio network (i.e., a public cellular network). The mobile radio network needs to support the turn-off procedures used by the turn-off-unit. *See* Feisch at page 16, para. 3 and page 17, para 2. If the network does not support the turn-off procedures, then the mobile phone must support the turn-off procedures. *See* Feisch at page 13, last paragraph to page 14, first paragraph. This dictates a complete dependence on third party cooperation or a reliance on specific features that must be embodied in the mobile phone. Without this support of third party cooperation, the turn-off unit of Heinonen does not work.

In contrast, the subject invention is predicated upon being independent of third party operations and of being practical in all public network situations, without being a part of that

network.

Moreover, contrary to the Examiner's assertion, Fiesch does not disclose a turn off unit that instructs the cell phone to remove itself from normal communication with the base stations. Rather, the turn off unit merely shuts down the cell phone. *See* Fiesch at page 11, last para. to page 12, first para. As such, Feisch does not disclose a a control module which establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, as claimed by the applicants. Rather the turn off unit of Feisch just turns off the cell phone so it cannot engage in any communication protocol.

Since Park et al., Heinonen et al. and Feisch, either alone or in combination, each fail to disclose applicant's claimed features, the combination of these references fails to teach or suggest the invention as claimed by Applicants.

In contrast to Park et al., Heinonen et al. and Feisch, the subject invention does not rely upon transmitting information about the nature of the restrictions to the mobile terminal, nor does it rely upon unique instructions to the mobile terminal, nor does it rely upon the mobile terminal's ability to understand and implement unique instructions. The subject invention utilizes a control module that transmits to a cell phone standard instructions from the many instructions that comprise the various protocol standards. These standard instructions as claimed by applicant include: a) a signal which instructs the cell phone to lower its transmission power so that transmissions from the cell phone do not reach any surrounding base stations; b) a signal which instructs the cell phone to transmit at a frequency not recognized by any surrounding base stations; and/or c) a signal which instructs the cell phone to remove itself from normal communication with the base stations. After the cell phone receives one or more of these

instructions, the control module controls the cell phone to prevent use of the cell phone with the surrounding base stations and the mobile phone continues to operate as if it were in a normal public network, i.e., in communication with its carrier network, oblivious to the fact that it has been removed from its carrier network.

Claim 26 of the subject invention recites “a cell phone intervention device independent from a network of base stations which the cell phone communicates with, the device comprising: an antenna; a receiver responsive to transmissions received by the antenna; a transmitter; and a control module responsive to the receiver and connected to the transmitter, the control module configured to: measure the absolute field strength of all received transmissions detected by the receiver from surrounding base stations, set the transmission power level of the transmitter to have an absolute field strength greater than the highest, measured absolute field strength detected from a surrounding base station, detect a signal received from a cell phone in a predefined area proximate the receiver, and establish a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, the transmitter transmitting to the cell phone a) a signal which instructs the cell phone to lower its transmission power so that transmissions from the cell phone do not reach any surrounding base stations, b) a signal which instructs the cell phone to transmit at a frequency not recognized by any surrounding base stations, and/or c) a signal which instructs the cell phone to remove itself from normal communication with the base stations, the control module controlling the cell phone to prevent use of the cell phone with the surrounding base stations.” (Emphasis added.)

Specifically, none of the cited references, either alone or in combination, teach, disclose or suggest a cell phone intervention device independent from a network of base stations which

the cell phone communicates with that includes a control module which establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, as claimed by the applicants.

As noted above, Park et al., Heinonen et al. and Feisch each fail to teach, disclose or suggest the applicants' claimed invention. Since both Park et al., Heinonen et al. and Feisch each fail to disclose these features, the combination of these references fails to produce the invention as claimed by the applicants.

Furthermore, the Examiner fails to offer a sufficient explanation of why there would be a teaching, motivation, or suggestion to combine the teachings of Park et al., Heinonen et al. and Feisch in the first place.

The Examiner's reason for combining Heinonen with Park is that it would allow one skilled in the art to eliminate a disturbance caused by a mobile station within a certain area. However, Park already relates to eliminating a disturbance caused by a mobile station within a certain area so there would be no motivation for one skilled in the art to look at Heinonen for this reason.

In fact, Heinonen et al. does not relate to a cell phone intervention device that operates independently from a network of base stations. Rather, Heinonen et al relates only to typical mobile communication networks. As such, one skilled in the art would have no motivation to look to Heinonen et al. to combine it with Park et al.

The Examiner's reason for combining Park with both Feitsch and Heinonen with is that it would "provide an economically attractive and functionally reliable solution of operating mobile devices in restricted areas." The Examiner has used this exact same reason in past rejections to combine Park with another reference, U.S. Patent No. 6, 832,093 to Ranta, with the same lack of

specificity. However, it was Ranta that alleged its apparatus was “economically attractive and functionally reliable solution to the problem of restricted area operation”, not Park. *See* Ranta at column 2, lines 6-8. Thus this reason is inapplicable to the combination of Park with Feitsch and Heinonen. It is clear that the Examiner is merely picking elements from separate references in the prior art to arrive at the applicants’ claimed invention.

The applicants assert, however, that it would not be economical to combine the apparatus of Feitsch, which communicates with a public network, with the Park et al. apparatus, which merely detects a mobile phone in an idle state and generates an alarm. Also, there is no suggestion in either Feitsch or Park et al. that the apparatus in one is more functionally reliable than the other such that the combination would be desirable. The Examiner has failed to indicate how combining Park with another, more complex apparatus will actually make it more economical or reliable.

In fact, Park actually teaches away from the combination either Feitsch or Heinonen. Park describes an apparatus that does not prevent use of the mobile phone with the surrounding base stations. Rather Park teaches that it is desirable to use only an externally generated alarm to notify someone that a mobile phone is in a designated area. Thus, Park teaches away from combining it with a reference that does attempt to control a mobile phone, such as Feitsch or Heinonen, albeit in a manner different than applicants’ claimed invention.

Thus, the Examiner fails to provide a sufficient teaching, motivation or suggestion to combine these two references.

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

"The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references").

In re Sang Su Lee, 277 F. 3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

As described above, none of the cited references discloses a cell phone intervention device independent from a network of base stations which the cell phone communicates with that includes

a control module which establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, as claimed by the applicants..

Only the applicants' own disclosure teaches this and it is improper to use the applicants' disclosure as a blue print for conducting a hindsight §103 analysis.

With regard to the rejection of claim 28, applicants disagree with the Examiner and respectfully assert that it is not well known in the art that MSC polls all mobile registrations in order that it can locate a mobile phone and route the call appropriately. The MSC does not "poll" all mobile registrations in order that it can locate a mobile station (MS) and route the call accordingly. In the case of GSM, the MSC uses specific data located in the Home Location Register (HLR) to locate a mobile station and route incoming calls. When the location is found in the HLR, the MSC then broadcasts a message over the public Paging Channel for all to hear. If the mobile station is listening to the Paging Channel, it will respond.

For tracking movement of a phone within a restricted area, the control unit stores date and time in/out of its area (registration). The Remote Management Unit (RMU) "polls" all of the control units on its network by contacting each one individually and asking for its history on all phones captured. For the MSC to find the single last location of a mobile station (in the file allocated to that mobile station) and broadcast a message to the world is not the same as individually signaling each control unit for historical data on all mobile stations and compiling it. These appear to be incompatible processes.

Thus, the applicants take issue with the Examiner's apparent use of Official Notice in the rejection of claim 28 since the Examiner's assertion is not well known in the art.

Accordingly, the combination of Park et al., Heinonen et al. and Feisch does not disclose

or suggest the subject invention of claims 26-29 as claimed by Applicants. Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates collect in Waltham, Massachusetts at (781) 890-5678.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "David W. Poirier", is written over a horizontal line.

David W. Poirier
Reg. No. 43,007